

EXHIBIT 5

6/26/2013

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JER

no softening since 2007

add lime in bins - Youngs to remove

Westech making recommendations for lime softening

Softening will be challenging

July 8 - start plant run

run for 4 weeks

18 mgd

check filter loading to see how much alone

18 mgd - push to 36 mgd?

what is overflow capacity/structural load

chlorination limited 20 mgd

test run sludge to Bay Head

Steve - chemicals need to be DEQ approved

100% off river - interim plan

DEQ - concern about quality monitoring if

river / DWSD commingled lead/copper

city wants for DWSD

- October to determine sunk costs

- new rates in Jan - Feb

Survey now - actual opacity profile

hydraulic loadings out of reach to

filters → 36 mgd

EXHIBIT

Redding 14

DBQ desires hydraulic test to themselves
- but plant can't get that核准 out

combined City/Conty MDD 40.5 mgd

Bloomber - no regulatory required - local
- get below 150

- take out CO₂ hardness only

what to do with sludge

520,000 gallons sludge/week

19,000 " / hr if pressed

200 T/week dry

CO₂ and Non CO₂

Bloomber suggests go ~~table~~ table / land app

Warren - Rehal thickness available

- store in old basins at WTP

Garrison/Harney - no liaison between
~~regulatory~~ EFM's

and? (not CO₂)

- Oxygen storage 30 days

- Scum barge

- high service pump

- hydraulic collars - 8" pipe

- don't reservoir?

- emergency interconnect

- C/T

- ~~good~~ electrical

Steve - prefers onsite power backup
in lieu of redundant

cler at WTP ozone - 747

KWA in at NE corner?

Rob Borzich - Knowledgeable about piping on site

Flint - emergency backup to GCDC → 24 mgd
40 mgd MDD - looks continuous

GCDC - avg 13 mgd

Flint MDD = 18 mgd

GCDC MDD = 24 mgd

channel flow - design for Flint+MDD = 24 mgd

Qavg for city = 14 mgd

recent avg = 12 mgd

minimum day = 7.07, 9, 11 use 7

turbidity 0.10 avg 0.30 max goals

handwash - goal below ~~150~~ 150

crypto - 3 log inactivation

water temp - 0.5°C

Gardia - 3 log

virus - 4 log

WTP - 1st customer → achieve goals before high service

TTHM/HAA/C - running sample / less than 60?
any pending regulations?

Long term LTZ monitoring
should be in top tier BIM
not impacts to Lake Huron

Short Term

- lead & copper - more sites?

Lake Huron
No zebra - remove in 1/2 day

high same - address

low same

no UV

emerging intercomit

DEC - no issue with CL gas

Fluoridation?

MDEQ - KWA is best available source

Operations

1 Farmer / 2 operators w/o software

1 Farmer / 3 operators w/ software

3 - 8 hour shifts planned

will county share costs for WTP plant run?

- chemical feed / labor / energy